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Abstract

In the current context of demographic pressures, reforms of PAYG pension systems increase the extent to which individuals are responsible for their own retirement planning. The French pension system offered high replacement rates. The population used to consider that the State scheme had to provide them with an adequat level of pension. In 2003, the pension reform implemented individual and professional pension plans. These retirement savings contracts are not well developed. However, we observed that individuals prefer contracting life endowment contracts, which are long term savings supports, to prepare retirement. Using econometric specifications, we intend to put into perspective the households and individual characteristics which explain the holding behaviours of life endowment contracts and retirement savings plans. We conclude that the highest professional categories and the most educated individuals hold more frequently and simultanesously both types of contracts.

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1. Introduction

In the current context of pension reforms and population aging in OECD countries, the extent to which people are responsible for their own retirement planning increases.

To face demographic challenges, reforms encourage private pension funding and increase the contributory characteristics of the pension system in OECD countries. Private wealth is an important pillar to maintain the standard of living after the retirement.

In France, the major role of the statutory scheme, the high replacement rates implied a low development of voluntary or sectorial pension schemes. A few questions on the French case deserve to be addressed as it constitutes a paradox: despite the generous Pay-As-You-Go (PAYG) pension system, the household savings rate is high, it amounts to 16% in 2009 (Eurostat), while it amounts only to 13.9 in the European Union. However, private pension plans are not well developed. Despite the high household savings rate, inequalities in retirement planning remain. Among the 50-70 age group, we observe strong inequalities of accumulation. Some households retire with a high level of financial and non financial level of assets and other did not save enough to maintain their standard of living during the retirement period.

In 2010, 6.3 billion euros pension benefits were paid under a contract of additional pension, equivalent to only 2.3% of the total amount of pensions paid (DREES, 2012). The French population used to consider that the PAYG public pension system should finance pensions. The pension system being based on an insurance principle and intergenerational risk sharing, households used to estimate that, once retired, the public system had to provide them with an adequate level of pension. Although the minds are changing, the French case remains a special case.

Funded pensions are recent: individual and professional pension plans[4] were introduced only in 2003 and are not well developed. However, we observe that French households contract frequently life endowment contracts, also called in France “life insurances”. This typical French savings vehicle gives the possibility to household to choose between an annuity or a lumpsum at the end of the contract.. The first motive to save trough a life endowment contract is the retirement planning (28% of annuities holders) (Darmon and Pagenelle, 2005). Until 2004, the second and third pillars were, for the most part inaccessible for French workers. The 2003 reform encouraged individuals to turn to individual or collective savings plans.

In this paper, we intend to better understand what kind of supplementary income sources elder may receive after retirement. We focus on the current French pensioners. Using an original representative household survey, we define econometric specifications to estimate the effects of different socio-demographic determinants on life endowment contracts and retirement savings contracts holding. We then use a bivariate probit model to examine the correlation between the holding of annuities and retirement savings contracts. Are the two savings contracts

[4] These private plans are called " Plan d'épargne retraite populaire" (PERP), " Plan d'épargne retraite entreprise " (PERE) and " Plan d'épargne pour la retraite collectif " (PERCO).

complementary products or substitutable assets? What characteristics impact on such holdings among elderly people? The relationship between life endowment contracts and retirement savings contracts holding among retirees has not been analyzed before. We consider life endowment contracts and individual retirement plans, more precisely financial contracts that may provide a monthly or annual sum to an individual in retirement until he dies. By identifying factors impacting holding behaviour among the elderly, we aim to define part of the institutional framework that could reduce the intragenerational poverty risk.

The remainder of the paper is organized as follows. In the second section, we present briefly the pension system in France and the literature on life endowment contracts and individual retirement plan holding. Section III describes the survey and the econometric estimates that combine the relationships between life endowment contracts and individual retirement savings contracts holding. In the section IV, we report the estimates results. The last section offers concluding remarks.

2. Retirement and holding behaviour in France

The French retirement system is primarily based on a statutory pay-as-go system. The State pension scheme is dependant on the sector of activity in which the worker participates. The state pension is calculated on the basis of the person's wage, rate of contribution, and length of contribution. The supplementary schemes, which complement the general State regime and are compulsory, are financed on a pay-as-you-go basis.

The 2003 reform encouraged individuals to turn to individual or collective savings plans. This reform strongly pushed for an increase in the importance of the second and third pillar. The introduction of new savings vehicles encouraged employers to motivate their employees to save for retirement. Important tax benefits were introduced in order to develop the private sector schemes. Until 2004, only few private disposals, depending on the sector of employment, allowed workers to plan individually their retirement. The reform attempted to propose more attractive and universal retirement savings vehicles.

Two new forms of occupational pension funds were implemented. The PERCO [5] is a corporate defined contribution scheme. It is a funded scheme in which all employees may have access. This scheme benefits from tax incentives. Some employees must request membership into this plan, while in other companies enrolment is automatic. At retirement age, the individual may choose to receive their pension amount in the form of annuities or lump sum capital withdrawal depending on the original collective or employer agreement. The PERE [6] plan is a pension scheme offered by insurance companies upon agreement between Unions or companies. Company contributions are mandatory and, if defined in the

[5] Plan d'épargne pour la retraite collectif
[6] Plan d'épargne retraite en entreprise

initial agreement, employee contributions can also be compulsory. The pension sum is only available upon retirement in the form of annuities.

The 2003 reform has also widely encouraged the development of privately managed pension provision through individual contracts. The PERP[7] is an individual, voluntary retirement plan running under insurance directives. This optional savings vehicle is available to all individuals. It was designed to complement other retirement income sources. By contributing regularly to this savings plan, the individual can acquire enough savings to receive an additional annuity amount upon retirement.

However, over the past decades, we observe that French households have been prone to make long-term investments by contracting life endowments contracts, also called "life insurance" in France. They contract individual retirement savings products more rarely. Life endowment contracts are typical French long-term savings vehicles. French households have the possibility to contract two types of life insurances:

- Pure life insurances as in other countries: term, or whole-life, policy providing payments to beneficiaries if death occurs during the contract, nothing being paid in case of survival of the insured. This is actually death insurance. We do not consider this type of contract in the article.
- What is commonly called "life insurance" in France is real savings product over a single period, with the tax benefits of insurance. Life endowment contracts allow funds to grow while maintaining a long-term goal: retirement, investment real estate, etc. It also offers significant tax benefits for succession. At the end of the contract, the beneficiary may receive an annuity or a capital. We consider this savings product. To avoid confusion in the article, we use the terms "life annuity" or "life endowment contracts".

Bernard *et al.* (2002) show how demographic structure and age impact the holding of life annuities or private voluntary pension contracts. The authors test a probit model to explain the determinants of endowment insurance and voluntary retirement savings holding. Households aged 50 and more hold more contracts than younger households. Whereas the holding of complementary pension contracts tends to decrease after the age of 60, that is not the case for life insurance contracts. Using the same survey, Arrondel *et al.* (2003) provide an analysis of the socio-economic determinants of life insurance holdings in France. They conclude that French households without children buy more life endowment contracts in order to prepare for their retirement, whereas households with children prefer pure life insurance in case of death in order to protect their family.

In France, the holding behaviour with a retirement related motive[8] is consistent with the life cycle hypothesis. Using the French Wealth survey (*Patrimoine*) of 1992, 1998 and 2004, Brun-Schammé and Duée (2008) distinguish the age effect from the cohort effect by describing the long-term assets holding for several cohorts. The holding rate for retirement motive increases

[7] Plan d'épargne retraite populaire

[8] Life endowment contracts, popular savings schemes, retirement savings contracts held specifically to prepare the retirement.

significantly among households until the age of 60. The highest holding rate is observed for households headed by a 60 years old individual. Then, the holding rate decreases to 5% for households aged of 72 years. However, the possession of such long-term assets, for any motive, decreases only very slightly after the age of 55. The authors conclude that very few households liquidate their retirement related wealth, and change their holding motive. They keep their wealth but for other reasons (bequests, disability risk, tax deductions). It appears that retirement related savings behaviour depends mainly on the age and the professional status. However, financial long term assets holding behaviour, for any motive, highly depends on the income level (Brun-Schammé and Duée, 2008).

Since Brun-Schammé and Duée's article, new data on holding behaviour, including the recent individual and professional pension plans, the *PERP* and the *PERCO*, have been published. At the end of 2007, 2 million of individuals held a *PERP*, and 334 000 a *PERCO* (Croguennec, 2009). After its introduction in 2003, the development of the PERP experienced an increase of 6%, and the PERCO 66%, of the covered employees. Before the implementation of these retirement pension plans, the possibility the save for retirement through a funded pension plan concerned only few professional categories, mainly executives. 30% of the PERP holders belong to the 40-49 age group, and 35% of the PERCO holders belong to the 50-59 age group.

3. Survey and empirical model

3.1 The Wealth Survey

Asset accumulation is linked with various socio-economic characteristics. We aim particularly to highlight household's holding behaviour, linked with the aging risks in a country where the retirement income usually depends on the public PAYG pension system.

We consider savings vehicles (life endowment contracts and retirement savings contracts both collective and individual) in phases of accumulation and decumulation. Indeed, although individuals retire, they may keep their assets, particularly in the case of life endowment contracts. Conversely, they usually liquidate their retirement savings contracts.

We use the latest household survey (The Wealth survey) conducted in France in 2009-2010 by the French National Institute of Statistics and Economic Studies - *Institut National de la Statistique et des Etudes Economiques* (INSEE). The database includes a representative sample of the French population, consisting in 35729 individuals, belonging to 15006 households. The wealth survey is particularly informative about the financial and non-financial assets of the households and questions individuals on their income, age, professional category, education/training, marital situation, and work status (active, inactive, retired). Furthermore, the survey also includes the type of asset held by the household (checking account, savings account, real estate, corporate savings, etc.). Retirement pensions, both state and private (type and amounts by range), are also reported.

For each pensioner, we consider personal and household characteristics. 21.22% of the respondents are retired.

A sub sample of 3989 pensioners, who filled in the holding questions in the survey, is selected. In this sample, pensioners are in average 71 years old, 44.8% of the retired are aged from 60 to 69, 46.8% from 70 to 85 and 8.4% are aged 85+. The youngest individual is 60 years old, whereas the oldest one is aged 99.

Life endowment contracts are much more developed among pensioners than private retirement contracts: 46% hold such a contract or receive an annuity from this contract.

Only 21% of the sample holds a retirement savings contract. Among retirees, only individuals retired between 2004 and 2010 are concerned by the 2003 reform that implemented new private retirement savings contracts.

Table I Life endowment contracts and retirement savings contracts holders in the sample

	No retirement savings contract	Retirement savings contract	Total
No life endowment contract	1764	371	2135
Life endowment contract	1396	458	1854
Total	3160	829	3989

Source: Wealth Survey, 2010

55% of pensioners holding a retirement savings contract hold simultaneously a life endowment contract. 56% of pensioners who do not hold retirement savings asset do not hold life endowment contract. 83% of retirees having no life endowment contract do not hold any retirement savings contract.

Considering these statistics, we may conclude that both life endowment contracts and retirement savings contracts are complementary. However, 75% of life endowment contracts holders do not hold any private retirement contracts.

3.2 The estimation method

As a first analysis, we test probit models explaining the probability of annuity (ac_i) and retirement savings contracts (rc_i) holding, formulated as:

$$\Pr ob(ac_i = 1) = X_i \alpha_i + u_i$$

$$u_i \sim N(0,1)$$

$$\Pr ob(rc_i = 1) = Y_i \beta_i + u_i$$

$$u_i \sim N(0,1)$$

With X_i and Y_i the vector of explanatory variables for each individual i of our sample, and u_i the error term. In the second step, we construct a bivariate-probit model to estimate simultaneously the probability of holding an annuity and that of holding a private retirement savings contract. We assume that the probability of an annuity holding (ac_i) and a retirement savings contract (rc_i) holding are interrelated (Greene, 2008).

The model includes separate probit models with correlated disturbances. Our two binary dependant variables represent the probability of holding an annuity contract (ac_i^*), and the probability of holding a retirement savings contract (rc_i^*). We assume that these two variables represent two interrelated decisions by households. French households have usually made long term investments by contracting annuities. New retirement savings contracts have been implemented since the 2003 reforms. We estimate a bivariate probit model to highlight the correlation between the holding decisions of these two savings vehicles: are they substitutable or complementary?

We estimate the following model:

$$ac_i^* = x_{1i}\beta_{1i} + \epsilon_{1i}$$

$$rc_i^* = x_{2i}\beta_{2i} + \epsilon_{2i}$$

Where ac^* and rc^* are unobservable and are related to the binary dependant variables ac_i and rc_i by the following rules:

$$ac_i \begin{cases} 1 \; if \; the \; individual \; declares \; holding \; an \; annuity \; contracts \\ 0 \; if \; he \; declares \; not \; holding \; such \; an \; annuity \; contract \end{cases}$$

$$rc_i \begin{cases} 1 \; if \; the \; individual \; declares \; holding \; a \; retirement \; saving \; contracts \\ 0 \; if \; he \; declares \; not \; holding \; such \; a \; saving \; contract \end{cases}$$

ϵ_j represent the error terms of the two probit models.

In the bivariate probit model, we assume that the error terms are correlated:

$$\epsilon_{1i} = \zeta_i + u_{1i}$$

$$\epsilon_{2i} = \zeta_i + u_{2i}$$

The error terms follow a standard multivariate normal distribution, where V represents the residual covariance matrix, with ρ as the correlation coefficient.

$$\begin{pmatrix}\epsilon_1\\ \epsilon_2\end{pmatrix} \rightarrow N\left(\begin{pmatrix}0\\ 0\end{pmatrix}, V\right)$$

$$V = \begin{pmatrix}1 & \rho\\ \rho & 1\end{pmatrix}$$

Conducting likelihood ratio tests, our results indicate that the bivariate-probit estimation is more efficient than that of two independent probit equations. The probability of annuities holding and that of holding a private retirement savings contract are interrelated.

3.3 The variable definitions

We take into account the standard socioeconomic determinants used in the literature: professional categories (blue collar, white collar, employed, self-employed), age and life expectancy, composition of the family and a dummy of poverty.

We define the exposure-to-poverty threshold at 60% of the median equivalent income in the population. Each member of the household is assigned an income calculated using an equivalence scale. The economies of scale in housing and the consumption of goods and services are considered by controlling for household composition[9]. We assign the value of 1 to the first household member, 0.5 to each additional adult member and 0.3 to each child under 14. This methodology has the advantage of illustrating more precisely the standard of living of individuals belonging to a household.

[9] Part of the existing literature underlines the potential asymmetry in the management of and access to the household's resources (Browning, Bourguignon, Chiappori and Lechene, 1994; Belleau et Proulx, 2010). Nevertheless, assuming that most households share and manage their income fairly, we deflate household resources by the number of consumption units in the household.

According to Yieh and Chen (2000), age, gender, the number of children and education affect the precautionary savings of consumers. Professional categories might capture a wealth effect and could be considered as a proxy of income. Using the 1999 American retirement investment survey, Joo and Grable (2000) showed that individuals with higher education higher income, and financially literate invest more frequently in a retirement program (Lusardi, Mitchell and Curto, 2009). We consider the level of education (i.e. level of diploma) as a proxy of financial literacy.

Housing may provide a good vehicle for consumption at retirement. We consider a dummy variable indicating whether the household is homeowner or not. Homeownership may negatively affect the demand for endowment insurance and retirement savings if it is considered as a partial substitute for precautionary savings. Conversely, if homeownership and other asset holding are complementary, it could positively affect such demand.

Bloom et al. (2003) argued that higher life expectancy should lead to an increase in precautionary savings. To analyze the longevity effect, we introduce a variable of life expectancy.

4. Results

We consider firstly the last professional category of the current retired. Our results show a great difference between professional categories. Indeed, the probability of holding a life endowment contract is weaker for employees and blue-collar workers (See table II of the appendix). Executives and shopkeepers have a higher probability of holding such a contract than the intermediate professional category. Observation of the marginal effects confirms that the professional category impacts on the probability of holding a life endowment contract: having been an Executive increases the probability of holding such a contract by about 7.4% at the age of 60, 70 and 80 (See table III in appendix). Conversely, this probability decreases if the individual has been an Employee or a Blue-collar worker. The negative marginal effect increases with age for these two categories: at the age of 60 having been an Employee decreases the probability of holding a life endowment contract by 6.8%. At the age of 80, this negative probability amounts to 7%. The probability reaches 8% for Blue-collar workers at the age of 60 and to 8.3% at the age of 80. In other words, this marginal effect increases slightly with age, whereas it remains stable for the higher professional categories. The negative impact is reinforced with age.

Individual retirement contract holding is significant only among Executives. The marginal effect related to Executives workers is significant: the probability of holding a retirement savings contract increases to 7.6% at 60 if the individual was an Executive during their active life (See table IV). The marginal effect decreases with age: it amounts to 6.4% for Executives at 80. The oldest pensioners in our sample are not concerned by the 2003 pension reform. Consequently, they saved less for retirement than younger retirees who had the possibility to contract at the end of their career a PERP, a PERCO or a PERE.

Those who lack literacy are much less likely to plan for retirement. Indeed, the population group having a low level of education do not hold any life endowment contract or retirement savings contract. This result is conform to Lusardi, Mitchell and Curto (2009). The population group having a high level of education are most likely to be financially sophisticated. At the age of 60, the probability to hold simultaneously a life endowment contract and a retirement savings contracts increases of 12% if people attained a high level of education.

There is a strong relationship between homeownership and life endowment contracts holding. Being a homeowner impacts positively the holding. The marginal effect of homeownership on such a contract holding increases slightly with age: it attains 23.2% at 60 years old and increases to 24.4% at 80 years old (See table III in appendix). However, we still expected to find a significant impact of homeownership on retirement savings contract holding. Indeed, homeownership allows retirees to improve their living standard. It prevents them from paying a rent at old ages. Homeownership is not a significant variable to explain retirement savings.

Life expectancy has a statistically significant impact on holding behaviour. It impacts positively on life endowment contracts and negatively on retirement savings holding. In other words, individuals expecting a long period of retirement tend to accumulate more through a life endowment contract. This savings vehicle may be considered as precautionary savings in order to finance, for instance, expenditure on long-term care. When life expectancy increases by one year, the annuity holding increases by 0.4%. Conversely, when an individual anticipates living longer, they neither keep their retirement contracts nor receive an annuity from such contracts. We conclude that the older French households were not used to preparing for their retirement individually. Given the generous retirement pension system and the low development of private retirement disposals, they did not save for their retirement through retirement savings contracts. The marginal effect of the life expectancy variable on retirement savings contracts holding attains -0.4%.

Family composition may affect the life endowment contracts holding behaviour. Adults probably aim to accumulate wealth in order to allow bequests to their children. However, at the same time, it may be more difficult to save when parents have to bring up children. In the case of retired people, it seems that only individuals without children continue to hold life endowment contracts or retirement savings contracts after retirement. Indeed, retirees still raising children are probably not able to save. Being a couple, widowed or single without any child increases the probability of holding an annuity by about 11 to 15%. This marginal effect remains stable with age. However, household composition does not impact on retirement savings contract holding, a result which may be explained by the fact that this savings vehicle applies to individuals preparing for their own retirement when it is contracted.

Being poor impacts significantly and negatively on the probability of holding an annuity contract or a retirement savings contract. The marginal effect of poverty on the holding behaviour is significant and negative: the probability of holding an annuity decreases by 10.8% at the age of 60 for poor people. This probability decreases to 11.2% at the age of 80. In other words the impact of poverty increases with age. The negative impact is less strong on retirement savings contract holding: the probability of holding decreases by 5.7% at the age of 60 for an individual under the exposure-to-poverty threshold. In this case, the intensity of the marginal effect decreases with age. The probability amounts to 4.6% at the age of 80.

We find a positive and significant correlation of unobserved disturbance in the two probits when estimating the biprobit. Consequently, some individual characteristics that explain the holding of life endowment contracts may also explain the detention of retirement savings. This is particularly the case for the following variables: Executive, Poor, and Master's degree. It puts

into perspective the importance of literacy and standard of living in the retirement planning. However, other parameter estimates, such as age or household composition, are quite different, suggesting that life endowment contracts and retirement savings assets may be held by different people. Given the very different levels of development of life endowment contracts and retirement savings vehicles, it is difficult to definitively assert that the two types of contracts are complementary. However, the majority of retirement savings holders also have a life endowment contract.

Although the correlation coefficient is not very large, it is significant. Consequently, the bivariate probit approach is the preferred method for putting into perspective the positive correlation between life endowment and retirement savings vehicles. The marginal effect of the professional categories on the probability of simultaneously holding an annuity and a retirement savings vehicle increases between the age of 60 and the age of 70. This probability attains 5.7% for older Executives at the age of 60 (See table V) and 6.1% at the age of 70. The marginal effects are negative for employees and blue-collar workers.

5. Concluding remarks

By using micro data from household surveys on income and wealth, we provide an original empirical study to analyse the holding behaviour among elderly people.

We found the existence of potential supplementary income sources among French pensioners. Retirement savings and life annuities could be considered as good vehicles for receiving a supplementary retirement income. France is an interesting case compared to others OECD countries, firstly, because occupational plans are not developed in this country. Secondly, individuals are not made aware of the need to save for their retirement in the context of generous public pension system. We analyse in this paper the relationship between holding rates and socio-demographic characteristics among retirees. We take into account the standard socioeconomic determinants used in the literature: professional categories (blue collars, white collars, employees, self-employed), age and life expectancy, composition of the family and a dummy of poverty. Our results show that life endowment contracts holding is weaker for employees and blue-collar workers. Conversely, Executives tend to hold these assets more frequently. People with a high level of diploma hold more frequently an annuity contract and a retirement savings contract. A high level of diploma provides them with a better financial awareness.

We also find a impact of life expectancy on holding behaviour. However, it impacts annuities holding positively and retirement savings contract holding negatively. In other words, when expecting a long period of retirement, individuals tend to accumulate more through life annuity contracts. This savings vehicle may be considered as precautionary savings, in order to finance the long-term care expenditures for instance.

Family composition also affects savings behaviour. Our models put into perspective the impact of this composition on the holding of life annuities. Elderly people probably aim to accumulate wealth in order to bequeath part to their children.

Finally, poorer retirees' access to annuity and retirement contracts is very weak. The government could encourage private savings through annuity contracts or retirement savings among poor people by proposing matching contributions according to the number of children and disposable income within the household. Among non-poor people, the issue is different: as they prefer contracting life annuities, it could be useful to make the private retirement contract more attractive by implementing new fiscal incentives.

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Appendix

Table II Results of the estimates

			Biprobit	
	Probit of life endowment contracts holding	**Probit of individual retirement savings contract holding**	**Probability of life endowment contracts holding**	**Probability of individual retirement savings contract holding**
Individual retirement savings	0.188*** (0.051)	-	-	-
Life endowment contracts	-	0.177*** (0.048)	-	-
Farmer	0,02 (0.083)	-0,135 (0.095)	0.02 (0.084)	-0.133 (0.098)
Shopkeeper	0,177** (0.077)	0,106 (0.086)	0,184** (0.077)	0,119 (0.086)
Executives	0.188** -0,077	0.242*** (0.082)	0.202*** (0.077)	0.254*** (0.082)
Self employed: lawyer, doctor	0.160 (0.17)	-0.026 (0.167)	0.157 (0.169)	-0.015 (0.168)
White Collar workers	Ref.	Ref.	Ref.	Ref.
Employee	-0.179*** (0.069)	-0,11 (0.079)	-0.185*** (0.069)	-0.122 -0,079
Blue Collar workers	-0.213*** (0.072)	-0,0004 (0.077)	-0.213*** (0.071)	-0.013 -0,076
Homeowner	0.665*** (0.071)	-0.045 (0.075)	0.663*** (0.71)	-0,005 (0.074)
Mortgage	-0,02	0,012	-0,02	0,011

	(0.059)	(0.064)	(0.059)	-0,064
Life Expectancy	0.011***	-0.013***	0.011***	-0.013***
	(0.005)	(0.005)	(0.005)	(0.005)
Couple with children	Ref.	Ref.	Ref.	Ref.
Couple without any child	0.307***	-0,007	0.307***	0,011
	(0.099)	(0.103)	(0.099)	(0.103)
Widowed with children	0.013	-0,101	0,009	-0.101
	(0.192)	(0.22)	(0.191)	(0.220)
Widowed without any child	0.386***	0,051	0.390***	0,074
	(0.112)	(0.118)	(0.112)	(0.118)
Single with children	0,083	-0,054	0,08	-0.051
	(0.313)	(0.331)	(0.317)	(0.331)
Single without any child	0.278**	0,159	0.287**	0,175
	(0.117)	(0.122)	(0.117)	(0.122)
Poor	-0.288***	-0.201***	-0.298***	-0.218***
	(0.065)	(0.074)	(0.065)	(0.074)
Age 60-64	-0.187***	0,106	-0.181***	0.094
	(0.063)	(0.067)	(0.063)	(0.067)
Age 65-69	Ref.	Ref.	Ref.	Ref.
Age 70-74	-0.090	0.127**	-0.083	0.121*
	(0.064)	(0.070)	(0.064)	(0.070)
Age 75-79	-0.101	0,064	-0.098	0.062
	(0.068)	(0.075)	(0.068)	(0.075)
Age 80+	-0,027	-0.174**	-0.030	-0.176**
	(0.069)	(0.078)	(0.069)	(0.078)
Master's	0.300***	0.486***	0.331***	0.504***

degree	(0.114)	(0.114)	(0.113)	(0.113)
Bachelor's degree	0.117	0.122	0.124	0.129
	(0.097)	(0.105)	(0.097)	(0.105)
High School diploma	Ref.	Ref.	Ref.	Ref.
No diploma	-0,289***	0.069	-0,285***	0.049
	(0.078)	(0.088)	(0.078)	(0.087)
Intercept	-0.930***	-0.732***	-0.884***	-0.693***
	(0.171)	(-0,173)	(0.171)	(0.174)
Rho	-	-	0.108***	
Test Rho=0, Chi2(1)			13,23	
Chi2	457.67***	146.86***	577.17***	
N	3989			

Table III Significant marginal effects on life endowment contracts holding at the ages of 60, 70 and 80

	60	70	80
Individual retirement savings	0.073***	0.074***	0.075***
Executives	0.07**	0.074**	0.075**
Shopkeeper	0.070**	0.070**	0.070**
Employee	-0.069***	-0.069***	-0.070***
Blue Collar workers	-0.081***	-0.082***	-0.083***

Homeowner	0.232***	0.239***	0.244***
Life Expectancy	0.004**	0.004***	0.005***
Couple without any child	0.117***	0.119***	0.115***
Widowed without any child	0.152***	0.153***	0.153***
Single without any child	0.109**	0.110**	0.111**
Poor	-0.108***	-0.110***	-0.112***
Master's degree	0.118***	0.119***	0.119***
No diploma	-0.113***	-0.114***	-0.114***
Marginal effect	0,4	0,43	0,45

Table IV Significant marginal effects on retirement savings contracts holding at the ages of 60, 70 and 80

	60	70	80
Annuity holding	0.053***	0.054***	0.044***
Executives	0.076***	0.077***	0.064***

Life Expectancy	-0.004***	-0.004***	-0.003***
Poor	-0.57**	-0.58**	-0.46**
Master's degree	0.165***	0.166***	0.142***
Marginal effect	0,223	0,23	0,163

Table V Significant marginal effects on the probability to hold simultaneously a life endowment contract and a retirement savings contract, at the ages of 60, 70 and 80

	60	70	80
Shopkeeper	0.035**	0.036**	0.028**
Executives	0.057***	0.061***	0.05***
Employee	-0.030***	-0.032***	-0.025***
Blue Collar workers	-0.020*	-0.021*	-0.015
Homeowner	0.054***	0.057***	0.041***
Couple without any child	0.028*	0,029*	0,021
Widowed	0.046**	0.048**	0,036*

without any child			
Single without any child	0.053**	0.057**	0.045**
Poor	-0.047***	-0.051***	-0.039***
Master's degree	0.121***	0.128***	0.109***
Marginal effect	0,102	0,112	0,084